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Cataract Extractions, with only
the Eye Operated Upon Closed
by Adhesive Strips.

THE OTHER EYE LEFT OPEN FOR THE
GUIDANCE OF THE PATIENT.

BY
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PROFESSOR OF EYE AND EAR SURGERY IN THE UNIVERSITY OF
MARYLAND, AND SURGEON-IN-CHIEF OF THE PRESBYTERIAN
EYE AND EAR CHARITY HOSPITAL OF BALTIMORE CITY.

*Read in the Section on Ophthalmology, at the Thirty-ninth Annual
Meeting of the American Medical Association, May, 1888.*

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CATARACT EXTRACTIONS, WITH ONLY THE EYE OPERATED UPON CLOSED BY ADHESIVE STRIPS.

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At the last meeting of the American Medical Association, June, 1887, I read a paper on the advantages of the isinglass plasters as the only lid dressing after cataract extractions, and the keeping of patients in moderately lighted rooms instead of the dark ones. I also stated that for some weeks I had made bold to leave one eye open for the guidance of the patient during the entire after-treatment. That this method of after-treatment would add immensely to the comfort of the patient, was evident to all; the only question was as to its safety, for the great results to be finally secured. Since that time, another year has passed, and with the twelve months' experience added, much more confidence can be expressed in the advantages of the method, revolutionary as it seems.

In my "Hospital Cataract Case-Book," every case of cataract extraction is entered. With the pure and simple senile cataracts in healthy patients, are put those of traumatic or inflammatory origin with iritic, choroidal and glaucomatous complications; all appear. Heretofore, in making up my reports and in tabulating the amount of vision secured to patients, a cataract extraction that was in every way a perfect success, the after-treatment having been accompanied

by no inflammation whatever, leaving the patient with a clear cornea and good pupil, was counted a failure because of nerve atrophy or extensive central choroidal or retinal changes, now rendered clearly visible by ophthalmoscopic examination through a transparent vitreous. As in the percentage of no restoration to sight these cases unjustly appear as failures in the general summing up after cataract extractions. In the list which I now present I will put only those of uncomplicated cataracts, so that proper comparison may be made between the methods of light afterdressings and treatment in light rooms which I strongly recommend, and the heavy dressings and dark rooms which others use.

In this list, culled from my case-book for the year ending May 1, 1888, I find seventy-four cataract extractions, dressed by a single strip of adhesive plaster over the eye operated upon only, the other eye being left open. Of these eyes so simply dressed none were lost. There was not a single case of corneal sloughing. In every case the cornea was clear, and in only two cases were the pupils closed by iritic adhesions, rendering an iridectomy in the future needful for the restoration of vision. In all of these cases the biniodide of mercury solution was freely used as an antiseptic during all steps of the operation.

My successful cases are not all V. $\frac{2}{0}$. Many of my hospital patients are drawn from distant regions, poor parts of the Southern country, and have not the means to pay for a second visit to Baltimore to have the secondary operation performed for the removal of capsular thickenings. We all know that these capsulotomies must enter largely into advancing cataract patients to the higher degrees of vision. Most of my cases are farmers from the States of Virginia, North Carolina, and Maryland. If

they can see to read ordinary print and attend to their farm duties it is all that they desire. The improvement is so immense upon the no seeing with matured cataract, that they are perfectly satisfied with the results as secured by a primary operation. In their anxiety to get home as soon as the eyes become strong enough to stand ordinary light, I cannot retain them over a fortnight under observation. At this stage of progress after cataract extraction, vision, as we all know, is by no means the best. I again state, that if my cases when I dismiss them, at the end of two weeks never to see the majority of them more, must be accepted on the status of V. $\frac{2}{20}$, I will contrast unfavorably with the operators in the largest cities, whose cases may frequently return to them for examination and after-treatment for many months, until time, secondary operations, the careful adjustment of lenses, with the correction of such astigmatism as remains after the operations, will put their eyes in the best condition to exhibit the high degrees of excellence which cataract operations will finally bring about.

The point which I desire to make, is this, in answer to the following question: Is the exposure of one eye, and the light dressing of the other eye by a piece of adhesive strap, after cataract extraction, conducive to inflammation? My experience answers very positively, that it does not. It matters not what our preconceived notions are. It is so easy to theorize as to the necessity of adjusting compresses for the support of the whole cornea, so that all parts will be equally pressed upon. That absolute rest of the eyes is required for the healing process to be perfected. That the movements of one eye will necessarily cause the closed one to move to like extent, and that this frictioning of the

wounded cornea against the lid must bring on inflammation. These opinions may be very satisfactory to those who always close up both eyes, and put their patients to bed, where they are kept on their backs for days in the dark. But if they will adopt the method which I use of closing up one eye properly, with a piece of isinglass plaster, that eye is as absolutely safe against all jarring as if a cut finger were dressed in similar manner. By this method, which in no way can disturb the nice relations which the eye ball and lids have always sustained to each other, there is nothing to friction injuriously against, even when the eye does move in its relations with the exposed one.

If an ophthalmic surgeon in his hospital work will try the methods honestly in an equal number of simple senile cataracts, his personal experience will soon show him the advantage of this simple treatment. Let him take a number of cataracts, as they may come in from week to week for surgical treatment, each alternate one to be operated upon in his bed, with both eyes closed by compressers and bandages, and kept absolutely quiet in a dark room with all the restraints that are usually imposed. Again, let each alternate one be operated upon in front of a large window, upon a convenient operating table, then close the eye properly with a piece of isinglass plaster one and one-half inches long and one inch wide, see that it is so thoroughly adjusted that the lids are made into one piece as it were, for the perfect support of the divided cornea. Leave the canthi free from the covering to permit of the escape of secretions, and for the introduction of drops by capillary action, if they be needed, without disturbing the adhesive dressing. When the plaster is dry and the lids closed let him get off from the table and walk to his moderately lighted room, guided

by the eye which has been left open. When there, let him follow his own inclination to lie on the bed or sit in a chair. He will undress himself at bedtime and dress himself in the morning, eating his regular meals, and enjoying the sight as well as the conversation with friends. Then remove the strap from the one, and the badge from the other simultaneously. If the cases have been operated upon with equal care antiseptically, the operation being in all cases equally smooth, the surgeon will find himself at the end of two weeks with twenty cases of cataract extraction equally free from inflammatory complications, and that is all that the most anxious operator can wish for.

During the week of treatment, at the daily visits, the surgeon must have noted the cheerfulness of the patient who had one eye opened and who had enjoyed the pleasant companionship of friends, when contrasted with the gloomy doubts and the shaken faith of the blind-folded one, who could not help inquiring how long he must endure this darkness. We will say nothing of the lighted candle which was brought in by the nurse to keep the surgeon from colliding with the table or other bed-room furniture. Then contrast the condition of the eyes at the time the strap and the bandage are removed. The one in the lighted room looks at you and you at him, as you have done daily. You have seen the adhesive strap day by day free from secretions and retaining its adjustment. You now see the newly exposed eye singularly devoid of redness and of weeping. It stands the light wonderfully for one so long closed, because the one always opened has preserved the closed one from the acquired sensitiveness engendered by darkness. As the candle is brought for the inspection of the eye re-

leased from the dark bandage, the injection and weeping, incumbent on the exposure after the week of night, do not surprise us, for we are accustomed to see it in every case thus treated.

Follow the two classes of cases up to the end of the two weeks, to the day of dismissal. The one treated by the bandage has never been for a moment without the protection of dark smoked glasses, and cannot go for a moment without them. The one treated by the adhesive strap with one eye opened had never had the smoked glasses on, and has never felt the want of them. One cannot bear the light, the other is not aware of its presence, and only puts on smoked glasses as he goes out on the street because he is told to put them on.

In the March number of the *Archives of Ophthalmology*, 1888, Dr. Oliver Belt, my resident physician at the Presbyterian Eye and Ear Charity Hospital of Baltimore City, has published a paper written some months since, on the result of one hundred cases of cataract extraction treated by the isinglass plaster, in light rooms and without restraint. Some, the earlier cases, with the closure of both eyes, and the last half of the series with one eye alone closed. These were taken as they appear in the case-book of the hospital, and as he very properly says, some of them with glaucoma, nerve atrophy, and other fundus complications. In his table it is seen that eighty-three of the one hundred had good vision, seven had improved sight; in five there was no improvement from causes, fundus troubles easily appreciable after the cataract was extracted, and five were failures. Among the five failures one was from purulent contagion, panophthalmitis, a misfortune or accident that would have occurred under any kind of after-treatment. The second

was in an old feeble man of 91 years of age, who was willing to take the risk in his desire to see. The third patient left the hospital for her city home seeing well. In getting from the street car to her house door she was caught in a summer shower, and from wet clothing and exposure the eye took on inflammation and was lost. Most surgeons would have ignored this accident, as she was dismissed from the hospital with good sight. I counted it as a loss for final success. Two alone remain as inflammatory complications, belonging to the operation of cataract extraction, and the treatment, a loss of 2 per cent.

In the same volume of the *Archives of Ophthalmology*, for March, 1888, Dr. H. Knapp reports a series of cataract extractions without iridectomy. He states how carefully he has used antiseptic precautions, avoiding all unnecessary movements, as tending in his opinion to the displacement of the iris, and how he has bandaged with care both eyes. He contrasts his method of dressing with the simpler method. Thinks Chisolm has gone too far in simplifying the after-treatment of cataract extractions, and then compares the final results in his carefully selected series of simple senile cataract extractions with the table from Dr. Belt's report of my hospital work, in which complicated as well as simple cases are mingled together. He closes this part of his paper with this statement: "The superiority of Dr. Chisolm's bandage is not borne out by his statistics. Five per cent. of loss and 5 per cent of no vision, is below the average success of experienced and skilled operators to the front rank of whom we all know Dr. Chisolm belongs." This is an unfair contrast, the more especially as Dr. Belt has explained in his paper how these cases were failures in seeing, even when no inflammatory complica-

tions had arisen during the after-treatment of the cases ; and how an ophthalmoscopic examination showed glaucoma, nerve atrophy, or central choroidal patches. If the operation of cataract extraction, even in these cases, had not been in every way successful how could the ophthalmoscopic investigation have been afterwards made. Sight was not restored, but that was not the consequence of an unsuccessful cataract extraction.

I here repeat what I had mentioned in the beginning of this paper, viz : that from May 1, 1887, to May 1, 1888, I had made seventy-four simple uncomplicated cataract extractions under the simple dressing of one eye closed with an adhesive strip, keeping the patient in a lighted room, and avoiding all restraint in his movements and in his surroundings. Of these cases I have not lost a single eye. In only two did inflammatory closure of the pupil occur, which will require a secondary operation for the restoration of vision.

I have now had two years' experience in this simple dressing of eyes after cataract extraction. For the past year I have left one eye open in all cases. I have not used dark rooms. I have not operated on the patient in bed, but always in the operating room, before a large window, and upon a firm narrow table. In every case the patient has walked from the operating room to his chamber, guided by the eye left open when it possessed vision enough. In no case was the patient put to bed unless he desired it, and every freedom of movement was permitted. In no individual case have I seen any trouble that I had not met with before, when I was in the habit of using careful bandaging, dark rooms and all the restraints, which many still impose.

As to the final success of the operation, I have

always thought that nine-tenths of the dangers were incurred during the operation. If the entire manual has been satisfactorily, or as we now say smoothly done, under antiseptic precautions, it makes but little difference how the case is afterwards dressed, success is most likely to crown the skillful operation.

I know that eyes get well under bandaging and bed confinement for I have individually had the experience in hundreds of cases. I know that eyes after careful cataract extractions will get well without inflammatory complications, under a light adhesive strap dressing of the eye operated upon only, the other being left open for the guidance of the patients. Whether the patient is put to bed and kept quiet or whether he is allowed to sit up and walk about, whether he is undressed or is allowed to dress himself, whether he is made to keep silence or is allowed to talk, whether he is kept in the dark or is permitted to enjoy the pleasure and comfort of daylight, whether he is surrounded by no restraints or is rigidly deprived of all liberty. In all of these diametrically hostile conditions of after-treatment of cataract cases, those carefully and judiciously operated upon will have sight restored and all in like ratio. Then let us show mercy and consideration for the comfort of those who must submit to our dictation, and put as few restraints as possible upon those we operate upon, the more especially as experience is beginning to show that these restraints count for nothing in the final good results to be secured.

